Standards for Mathematical Practices

Teacher(s): **Mathematical Topic(s):** **Date:**

1. Makes sense of problems and perseveres in solving them

☐ Understands the meaning of the problem and looks for entry points to its solution
☐ Analyzes information (givens, constrains, relationships, goals)
☐ Designs a plan
☐ Monitors and evaluates the progress and changes course as necessary
☐ Checks their answers to problems and ask, "Does this make sense?"

Comments:

2. Reason abstractly and quantitatively

☐ Makes sense of quantities and relationships
☐ Represents a problem symbolically
☐ Considers the units involved
☐ Understands and uses properties of operations

Comments:

4. Model with mathematics.

☐ Apply reasoning to create a plan or analyze a real world problem
☐ Applies formulas/equations
☐ Makes assumptions and approximations to make a problem simpler
☐ Checks to see if an answer makes sense and changes a model when necessary

Comments:

8. Look for and express regularity in repeated reasoning

☐ Notices repeated calculations and looks for general methods and shortcuts
☐ Continually evaluates the reasonableness of their results while attending to details and makes generalizations based on findings
☐ Solves problems arising in everyday life

Comments:

3. Construct viable arguments and critique the reasoning of others

☐ Uses definitions and previously established causes/effects (results) in constructing arguments
☐ Makes conjectures and attempts to prove or disprove through examples and counterexamples
☐ Communicates and defends their mathematical reasoning using objects, drawings, diagrams, actions
☐ Listens or reads the arguments of others
☐ Decide if the arguments of others make sense
☐ Ask useful questions to clarify or improve the arguments

Comments:

5. Use appropriate tools strategically.

☐ Identifies relevant external math resources (digital content on a website) and uses them to pose or solve problems
☐ Makes sound decisions about the use of specific tools. Examples may include:
  ☐ Calculator
  ☐ Concrete models
  ☐ Digital Technology
  ☐ Pencil/paper
  ☐ Ruler, compass, protractor
☐ Uses technological tools to explore and deepen understanding of concepts

Comments:

7. Look for and make use of structure.

☐ Looks for patterns or structure
☐ Recognize the significance in concepts and models and can apply strategies for solving related problems
☐ Looks for the big picture or overview

Comments:

6. Attend to precision.

☐ Communicates precisely using clear definitions
☐ States the meaning of symbols, calculates accurately and efficiently
☐ Provides carefully formulated explanations
☐ Labels accurately when measuring and graphing

Comments: